

WHAT IS CLAIMED IS:

1. A self-alignment structure for a cradle set comprising a circuit board and a connector mounted on the circuit board, the self-alignment structure comprising:

a base plate having at least a threaded hole therein; and

5           at least a sectional bolt having a rod body with one end of the rod body attached to a threaded section and the other end of the rod body attached to a cap piece of the sectional bolt, wherein the rod body has a diameter greater than the threaded section, and the threaded section of the sectional bolt passes through the circuit board and screws into the threaded hole in the base plate such that the bottom surface of the rod body is in  
10   contact with the surface of the base plate and the bottom surface of the cap piece faces the circuit board, wherein the rod body has a length larger than a thickness of the circuit board.

2. The self-alignment structure of claim 1 furthermore comprising an elastic body incorporated between the circuit board and the cap piece of the sectional bolt.

3. The self-alignment structure of claim 2, wherein the elastic body comprises a  
15   spring washer with a through hole for accommodating the rod body such that the two surfaces of the spring washer are in contact with the circuit board and the cap piece of the sectional bolt respectively.

4. The self-alignment structure of claim 2, wherein the elastic body comprises a rubber washer with a through hole for accommodating the rod body such that the two  
20   surfaces of the rubber washer are in contact with the circuit board and the cap piece of the sectional bolt respectively.

5. The self-alignment structure of claim 2, wherein the elastic body comprises a rubber washer with a through hole for accommodating the rod body and a spacer attached

to the surface of the rubber washer such that the spacer is positioned within a gap between the circuit board and the sectional bolt.

6. The self-alignment structure of claim 2, wherein the elastic body comprises a rubber washer with a through hole for accommodating the rod body, an outer groove ring on a side surface of the rubber washer such that the interior surfaces of the outer groove ring are in contact with two surfaces of the circuit board and a spacer between the through hole and the outer groove ring of the rubber washer that fills the space between the circuit board and the sectional bolt.

7. The self-alignment structure of claim 2, wherein the elastic body comprises a compression spring with two ends in contact with the circuit board and the sectional bolt respectively.

8. The self-alignment structure of claim 2, wherein the material constituting the elastic body is selected from a group consisting of silicone, rubber and resin.

9. A connector mounting structure for a cradle set having a connector therein, the connector mounting structure at least comprising:

a base plate having a threaded hole therein;

a circuit board positioned over the base plate, wherein the connector is attached to the circuit board positioned and the circuit board has a through hole that corresponds with the threaded hole in the base plate; and

a sectional bolt with a rod body such that one end of the rod body is attached to a threaded section and the other end of the rod body is attached to a cap piece, wherein the threaded section of the bolt passes through the through hole in the circuit board and

screws into the threaded hole in the base plate to tighten the circuit board and a bottom surface of the cap piece faces a surface of the circuit board;

at least a spacer ring positioned within the through hole with the edge of the spacer ring in contact with the bottom surface of the cap piece and the base plate  
5 respectively; and

an elastic body inserted into a space between the circuit board and the cap piece.

10. The connector mounting structure of claim 9, wherein the elastic body comprises a spring washer with a through hole for accommodating the rod body and the spacer ring such that the two surfaces of the spring washer are in contact with the circuit  
10 board and the cap piece.

11. The connector mounting structure of claim 9, wherein the elastic body comprises a rubber washer with a through hole for accommodating the rod body and the spacer ring such that the two surfaces of the rubber washer are in contact with the circuit board and the cap piece.

15 12. The connector mounting structure of claim 9, wherein the elastic body comprises a compression spring and the compression spring is set up with one end in contact with the circuit board and the other end in contact with the cap piece of the bolt.

13. The connector mounting structure of claim 9, wherein the material constituting the elastic body is selected from a group consisting of silicone, rubber and resin.

20 14. A cradle set for mounting a handheld device, comprising:  
a groove for accommodating a lower portion of the handheld device;  
a base plate;  
a printed circuit board mounted on the base plate;

a connector mounted on the printed circuit board and projecting in the groove for electrically connecting with the handle device; and

a sectional bolt fastening the printed circuit board and the base plate together, wherein the sectional bolt has a threaded portion threadedly engaging with the base plate,  
5 a rod body having a diameter large than that of the threaded portion and extending in the printed circuit board, and a cap piece having a diameter larger than that of the rod body and located over the printed circuit board, and wherein the rod body has a length larger than a thickness of the printed circuit board.

15. The cradle set in accordance with claim 14, wherein an elastic body is mounted  
10 between the cap piece of the sectional bolt and the printed circuit board.

16. The cradle set in accordance with claim 15, wherein the elastic body is made of rubber.

17. The cradle set in accordance with claim 15, wherein the elastic body is a spring.